DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: MORGAN	POND	Lake Area (ha):	13.76
Town:	SPRINGFIELD	Maximum depth (m):	11.5
County:	Sullivan	Mean depth (m):	3.4
River Basin:		Volume (m³):	466500
Latitude:		Relative depth:	2.7
Longitude:	72°01'09" W	Shore configuration:	1.71
Elevation (ft	:): 1681	Areal water load (m/yr):	9.90
Shore length	(m): 2250	Flushing rate (yr^{-1}) :	2.90
	ea (ha): 222.7	P retention coeff.:	0.55
% watershed p	oonded: 0.0	Lake type: natural	w/dam

BIOLOGICAL:	8 February 1996	14 August 1995
DOM. PHYTOPLANKTON (% TOTAL) #	1 PERIDINIUM 85%	DINOBRYON 35%
#	2	RHIZOSOLENIA 20%
#	3	PERIDINIUM 10%
PHYTOPLANKTON ABUNDANCE (units/mL)	
CHLOROPHYLL-A (µg/L)		6.34
DOM. ZOOPLANKTON (% TOTAL) #	1 NAUPLIUS LARVA 30%	KELLICOTTIA 34%
#	2 KELLICOTTIA 26%	BOSMINA 27%
#	3 KERATELLA 19%	CYCLOPOID COPEPOD 27%
ROTIFERS/LITER	51	
MICROCRUSTACEA/LITER	33	
ZOOPLANKTON ABUNDANCE (#/L)	84	
VASCULAR PLANT ABUNDANCE		Scattered
SECCHI DISK TRANSPARENCY (m)		3.2
BOTTOM DISSOLVED OXYGEN (mg/L)	6.7	0.4
BACTERIA (E. coli, #/100 ml) #	1	
#	2	
#	3	

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 4.2 Hypolimnion volume (m^3) : 35000 Anoxic volume (m^3) : 4000

CHEMICAL:			MORGAN PO SPRINGFIE				
	8 Febru	uary 1996	14 /	August 199	95		
DEPTH (m)	3.0	6.0	1.5	5.0	9.0		
pH (units)	5.4	5.4	6.5				
A.N.C. (Alkalinity)	1.8	1.8	2.2				
NITRATE NITROGEN	< 0.05	< 0.05					
TOTAL KJELDAHL NITROGEN	0.20	0.30	0.35	0.22	0.23		
TOTAL PHOSPHORUS	0.010	0.009	0.008	0.009	0.013		
CONDUCTIVITY (µmhos/cm)	24.8	24.1	22.4	23.3	24.3		
APPARENT COLOR (cpu)	65	65	60	70	62		
MAGNESIUM			0.37				
CALCIUM			1.8		lock to the same of		
SODIUM			1.1				
POTASSIUM			< 0.40				
CHLORIDE	< 2	< 2					
SULFATE							
TN : TP	20	33					
CALCITE SATURATION INDEX	,		4.2				

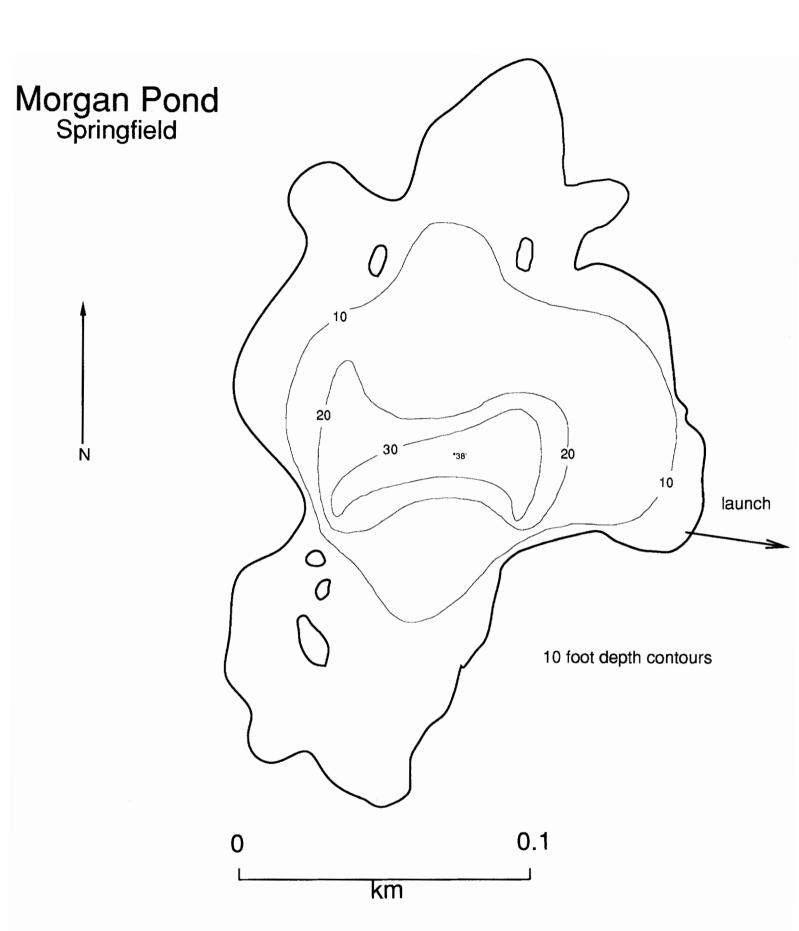
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1995

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
3	2	1	1	7	Meso.

COMMENTS:

- 1. This pond is the former public water supply for the Town of New London. There is no public access. A gated 4-wheel drive road does go to the pond; keys to the gate are obtained from the Public Works Office.
- 2. There is no development around the pond. It was surveyed jointly with the Fish & Game Department, at the request of the town.
- 3. This is a tea-colored pond surrounded by wetland shrubs.



FIELD DATA SHEET

LAKE: MORGAN POND

DATE: 08/14/95

TOWN: SPRINGFIELD

WEATHER: CLOUDY & BREEZY

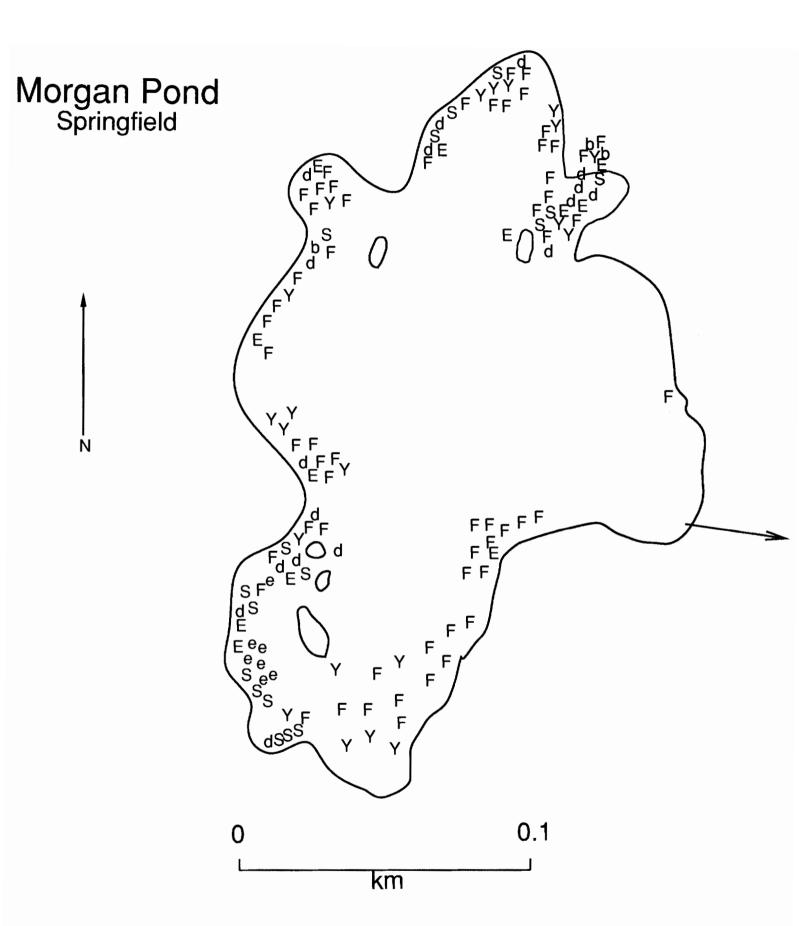
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DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	24.0	8.5	100 %
1.0	23.5	8.2	95 %
2.0	23.0	8.2	95 %
3.0	22.5	8.2	93 %
4.0	18.5	8.4	88 %
5.0	13.8	3.2	30 %
6.0	10.2	2.0	18 %
7.0	8.0	2.3	19 %
8.0	7.5	2.6	21 %
9.0	7.0	1.5	12 %
10.0	6.2	0.3	2 %
11.0	7.0	0.4	3 %
		the state of the s	

SECCHI DISK (m): 3.5 COMMENTS:

BOTTOM DEPTH (m): 11.5

TIME: 1130

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAKE: MORGAN POND		TOWN: SPRINGFIELD	DATE: 08/14/95	
Key	PLANT	NAME	ABUNDANCE	
1.01	GENERIC	COMMON		
Y	Nuphar	Yellow water lily	Scattered	
F	Nymphoides cordatum	Floating heart	Scattered	
E	Eriocaulon septangulare	Pipewort	Sparse	
d	Dulichium arundinaceum	Three-way sedge	Sparse	
S	Sparganium	Bur reed	Sparse	
b	Scirpus	Bulrush	Sparse	
е	Eleocharis	Spike rush	Sparse	
	and the second s			

OVERALL ABUNDANCE: Scattered

GENERAL OBSERVATIONS:

- 1. The abundance rating is for plants in the pond itself and does not include shoreland plants.
- 2. Sweet gale and leatherleaf were the dominant shoreline vegetation and they were abundant. They are not listed above or depicted on the map.
- 3. The filamentous green algae Spirogyra was present in the southwest cove.
- 4. A single yellow flower on a stalk (looked like *Utricularia cornuta*) was observed at a couple of locations along the shore. It is not listed above.